Statistics Review ANSWERS

1)	C	2)	A	3)	C	4)	A	5)	A
6)	A	7)	B	8)	A	9)	A	10)	D
11)	3	12)	3	13)	3	14)	4	15)	Min = 1, Q1 = 2, Med = 3, Q3 = 4, Max = 5

16. b) $y = 1.75x + 7.86$ $r \approx 0.901$ It's a linear, strong, positive correlation.

16. c) $50 = 1.75x + 7.86$ $24.08 = x$ Approximately 24 hours.

17. a)

Favorite Movie Types				
	Action	Drama	Comedy	Total
Men	15	9	6	30
Women	6	10	4	20
Total	21	19	10	50

b) Find the relative frequencies to compare and describe the survey.

Favorite Movie Types				
	Action	Drama	Comedy	Total
Men	$15/50 = 30\%$	$9/50 = 18\%$	$6/50 = 12\%$	$30/50 = 60\%$
Women	$6/50 = 12\%$	$10/50 = 20\%$	$4/50 = 8\%$	$20/50 = 40\%$
Total	$21/50 = 42\%$	$19/50 = 38\%$	$10/50 = 20\%$	100%

c)   **Examples**:
Less than 10% of the movie goers were women whose favorite movie type was comedy.
30% of the movie goers were men whose favorite type was action.
80% of the movie goers had either action or drama as their favorite.

18.   December: Min = 0,   Q1 = 16,   median = 30,   Q3 = 60,   max = 120
January: Min = 0,   Q1 = 16,   median = 30,   Q3 = 48,   max = 94
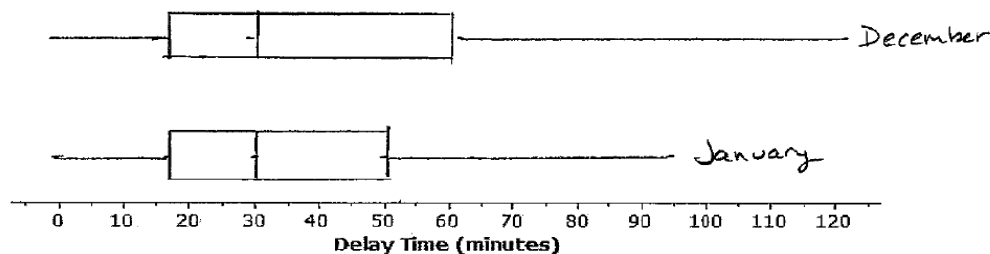
The bottom 50% is identical for both sets of data.
The upper 50% for December has a higher variability than for January.
The range for December is 120 while the range for January is 94.

19. b.   6 because it is the median and falls within the most frequent interval.
19. c.   sx = 6.38